

## CLAIMS

1. An elevator controller, comprising:

two or more control systems each having an arithmetic operation processing unit;

and

a common memory data of which can be mutually read out and written between the arithmetic operation processing units of the control systems,

wherein the arithmetic operation processing unit of each of the control systems, when taking in a pulse train signal used for elevator control as an input signal, takes in both a pulse train signal detected with detection means of one's own system and a pulse train signal detected with detection means of other system as input signals, and when a difference between counting results of the number of pulses of the input signal in both the systems falls within a predetermined input signal allowable error range, executes an arithmetic operation processing required for the elevator control using the input signal from the detection means of a predetermined control system and writes arithmetic operation results to the common memory and reads out the arithmetic operation results in other system from the common memory to obtain a difference between the arithmetic operation results in one's own system and the arithmetic operation results in other system, and when the difference between those arithmetic operation results falls within a predetermined arithmetic operation result allowable error range, judges that the whole control systems are in a normal state and issues a control operation permission command for permitting a control operation for the elevator, while when the difference between both the input signals is beyond the input signal allowable error range, or when the difference between both the arithmetic operation results is beyond the arithmetic operation result allowable error range, the arithmetic operation processing unit of each of the control systems judges that any one of the control systems is in an abnormal state and issues a

control operation stop command for stopping the control operation for the elevator.

2. An elevator controller according to claim 1, further comprising an output unit for reading out the control operation permission commands or the control operation stop commands issued by the arithmetic operation processing units of the control systems, and for issuing a control operation permission generalization command when reading out the control operation permission commands from the arithmetic operation processing units of all the control systems, and for issuing a control operation stop generalization command when reading out the control operation stop command from the arithmetic operation processing unit of at least any one of the control systems.

3. An elevator controller according to claim 1, wherein the arithmetic operation processing units of each of the control systems reads out a contact signal of a relay circuit portion for carrying out an ON/OFF operation in accordance with the control operation permission generalization command or the control operation stop generalization command, and compares the control operation permission command or the control operation stop command issued to the relay circuit portion, and an ON/OFF state of the contact signal to verify whether or not an operation of the relay circuit portion is normal.

4. An elevator controller according to claim 2, wherein the arithmetic operation processing units of each of the control systems reads out a contact signal of a relay circuit portion for carrying out an ON/OFF operation in accordance with the control operation permission generalization command or the control operation stop generalization command issued from the output unit, and compares the control operation permission command or the

control operation stop command issued to the output unit, and an ON/OFF state of the contact signal to verify whether or not an operation of the relay circuit portion is normal.